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# Update on NIF ARC laser commissioning experiments

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July 20, 2015

APS DPP meeting 2015  
Savannah, GA, United States  
November 16, 2015 through November 20, 2015

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**First NIF ARC target shot results<sup>1</sup>** HUI CHEN, P. DI NICOLA, M. HERMANN, D. KALANTAR, D. MARTINEZ, R. TOMMASINI, Lawrence Livermore National Laboratory, NIF ARC TEAM — The commissioning of the Advanced Radiographic Capability (ARC) laser system in the National Ignition Facility (NIF) is currently in progress. ARC laser is designed to ultimately provide eight beamlets with pulse duration adjustable from 1 to 50 ps, and energies up to 1.7 kJ per beamlet. ARC will add critical capability for the NIF facility for creating precision x-ray backlighters needed for many current NIF ICF and HED experiments. ARC can also produce MeV electrons and protons for new science experiment on NIF. In the initial set of experiments, 4 of the 8 beamlets are being commissioned up to 1 kJ per beam at 30 ps pulse length using foil and wire targets. X-ray energy distribution, spot size and pulse duration are measured using various diagnostics. This talk will describe the shot setup and results.

<sup>1</sup>This work was performed under the auspices of the U.S. Department of Energy by Lawrence Livermore National Laboratory under Contract DE-AC52-07NA27344.

☒ Prefer Oral Session  
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